

WHAT IS CLAIMED IS:

1. An image processing device for performing image processing on image data, the image processing device comprising:

a statistical value calculating device that performs statistical processing on the image data to generate statistical value data representing statistical values;

a scene detecting device that generates a control signal in accordance with a degree of change in a scene based on the image data;

a correction parameter calculating device that weights statistical value data of a plurality of frames based on the control signal to calculate a correction parameter; and

an image correcting device that performs image correction processing on the image data based on the correction parameter.

2. The image processing device according to Claim 1, the correction parameter calculating device generating the correction parameter by performing calculations in which the weighting on statistical value data of a previous frame is small when the degree of change in the scene represented by the control signal is large.

3. The image processing device according to Claim 1, the correction parameter calculating device comprising:

a storing device that stores statistical value data obtained in a previous frame;

a counting device that multiplies coefficients by statistical value data in the current frame and previous statistical value data read from the storing device, respectively; and

a coefficient controlling device that changes the coefficients based on the control signal.

4. The image processing device according to Claim 1, wherein, when statistical value data of the current frame is $S(n)$, a correction parameter of the frame prior to the current frame by one frame is $P(n-1)$, a first coefficient is A , and a second coefficient is B , the correction parameter calculating device calculates a correction parameter $P(n)$ of the current frame in accordance with the equations $P(n) = A * S(n) + B * P(n-1)$ and $1 = A + B$ and controls the values of the first coefficient and the second coefficient based on the control signal.

5. The image processing device according to any Claim 1, the correction parameter calculating device detecting a frame rate of the image data and weighting the statistical value data of the plurality of frames based on the detected frame rate and the control signal.

6. An image processing method of performing image processing on image data, the method comprising:
 - performing statistical processing on the image data to generate statistical value data representing statistical values;
 - generating a control signal in accordance with a degree of change in a scene based on the image data;
 - weighting the statistical value data of a plurality of frames based on the control signal to calculate a correction parameter; and
 - performing image correction processing on the image data based on the correction parameter.
7. An image processing program for performing image processing on image data, the image processing program instructing a computer to:
 - perform statistical processing on the image data to generate statistical value data representing statistical values;
 - generate a control signal in accordance with the degree of change in a scene based on the image data;
 - weight the statistical value data of a plurality of frames based on the control signal to calculate a correction parameter; and
 - perform image correction processing on the image data based on the correction parameter.